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Cozen O'Connor 277 Park Avenue, 20th floor NEW YORK, NY 10172 09/23/2011

EXAMINER

KAMAL, SHAHID

ART UNIT PAPER NUMBER

3718

DATE MAILED: 09/23/2011

	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
•	10/593,140	09/27/2006	Anders Haseth	3067-29PUS	6493

TITLE OF INVENTION: MAT FOR SPORT AND GAMES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/23/2011

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APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/593,140	09/27/2006		Anders Haseth		3067-29PUS	6493	
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KAMAL,	SHAHID	3718	473-422000				
CFR 1.363).  Change of corresp Address form PTO/SI  "Fee Address" ind PTO/SB/47; Rev 03-C Number is required.  3. ASSIGNEE NAME A PLEASE NOTE: Unl	ND RESIDENCE DATA less an assignee is ident h in 37 CFR 3.11. Comp	" Indication form ed. Use of a Customer  A TO BE PRINTED ON ified below, no assignee	2. For printing on the p (1) the names of up to or agents OR, alternativ (2) the name of a singl registered attorney or a 2 registered patent atto listed, no name will be THE PATENT (print or type data will appear on the port a substitute for filing an (B) RESIDENCE: (CITY	3 registered paten vely, e firm (having as a agent) and the nammers or agents. If a printed.  be) atent. If an assigneassignment.	member a 2es of up to no name is 3ee is identified below, the	document has been filed for	
Please check the appropr	iate assignee category or	categories (will not be p	orinted on the patent):	Individual 🖵 Co	rporation or other private g	roup entity 🚨 Government	
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5. Change in Entity Sta  a. Applicant claim	<b>tus</b> (from status indicates s SMALL ENTITY state	,	☐ b. Applicant is no long	ger claiming SMAI	LL ENTITY status. See 37 (	CFR 1.27(g)(2).	
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10/593,140 09/27/2006		Anders Haseth	3067-29PUS	6493
27799 75	90 09/23/2011		EXAM	INER
Cozen O'Connor	204 (1	KAMAL, SHAHID		
277 Park Avenue, 2 NEW YORK, NY			ART UNIT	PAPER NUMBER
			3718	

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 710 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 710 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

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The information provided by you in this form will be subject to the following routine uses:

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- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
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- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)				
	10/593,140	HASETH, ANDERS				
Notice of Allowability	Examiner	Art Unit				
	SHAHID KAMAL	3718				
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED or other appropriate comm GHTS. This application is	rith the correspondence address in this application. If not included nunication will be mailed in due course. THIS				
1. This communication is responsive to <u>05/31/2011</u> .						
2. X The allowed claim(s) is/are 1-32.						
3. ☐ Acknowledgment is made of a claim for foreign priority una) ☐ All b) ☐ Some* c) ☐ None of the:  1. ☐ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE".	been received.  been received in Applicati cuments have been receive	on No ed in this national stage application from the				
noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give	itted. Note the attached EX					
<ul> <li>5. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.</li> <li>(a) including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached</li> <li>1) hereto or 2) to Paper No./Mail Date</li> <li>(b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date</li> <li>Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).</li> <li>6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.</li> </ul>						
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date  4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material  /PIERRE E. ELISCA/ Primary Examiner, Art Unit 3718	6.  ☐ Interview 5 Paper No 7.  ☑ Examiner's	nformal Patent Application Summary (PTO-413),  ./Mail Date  s Amendment/Comment  s Statement of Reasons for Allowance				

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### **DETAILED ACTION**

#### Acknowledgements

1. Applicant's amendment filed on May 31, 2011 is acknowledged. Accordingly, claims 1-32 remain pending and have been allowed.

#### Examiner's Amendment

- 2. An Examiner's amendment to the record appears below. Should the changes and/or additions by unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. §1.312. To ensure consideration of such amendment, it must be submitted no later than the payment of the issue fee.
- 3. Authorization for this Examiner's amendment was given in a telephonic communication with Lance Lieberman (Registration No. 28,437) on or about August 17, 2011.
- 4. The application has been amended as follows:

### Listing of Claims

1. (currently amended) Device [[for]] <u>to</u> use in sports and games for detecting the position of impact of a moveable object, comprising:

a sheet or mat with an outer layer and an inner layer, the sheet or mat forming a target surface; a plurality of electrically conductive elements embedded in the sheet or mat and forming pressure sensitive switches distributed over the target surface and communicating with electronic circuits for outputting, processing and displaying electrical signals from pressure sensitive switches when activated by said impact or pressure,

wherein the plurality of electrically conductive elements comprise a first pattern of electrically conductive elements provided at an underneath side of the outer layer of the sheet or mat at least at the positions of the pressure sensitive switches, and a second pattern of electrically conductive elements provided at an upper side of the inner layer of said sheet or mat at least at the positions of the pressure sensitive switches, the first pattern of electrically conductive elements and the second pattern of electrically conductive elements being arranged so as to enable temporary contact to be established at the positions

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of the pressure sensitive switches, and an insulation layer between said outer and inner layers is provided with cavities or holes at the positions of the pressure sensitive switches for establishing temporary contact therein, and from each cavity or hole at least one opening directed sideways for air movement during said impact or pressure activation, and wherein at least one of the first and second patterns of electrically conductive elements is subdivided into a number of individual zones, where each zone comprises a plurality of said pressure sensitive switches, and the electronic circuits have separate connections to each of said individual zones.

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- 2. (previously presented) The device according to claim 1, wherein one of a character and a thickness of the insulation layer determines the detection sensitivity.
- 3. (previously presented) The device according to claim 1, wherein the second pattern of electrically conductive elements is applied on an upward surface of an inner support layer joined with the inner layer.
- 4. (previously presented) The device according to claim 1, configured for use with a ball, having a given size, wherein said positions of the pressure sensitive switches are mutually spaced in such a way that the ball by impact or pressure will activate at least two pressure sensitive switches.
- 5. (previously presented) The device according to claim 1, wherein at least one of said first pattern of electrically conductive elements and said second pattern of electrically conductive elements is formed by printed circuit elements.
- 6. (previously presented) The device according to claim 1, wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions.
- 7. (previously presented) The device according to claim 6, wherein said hollow and flexible protrusions provide a sufficient degree of elastic deformation when activated by said impact or pressure, which also affects the degree of detection accuracy.
- 8. (previously presented) The device according to claim 6, wherein said hollow and flexible protrusions are further provided with spring elements for obtaining a sufficient degree of elastic deformation when activated by said impact or pressure.
- 9. (previously presented) The device according to claim 6, wherein the shape of said protrusions is substantially circular as seen in plan view.
- 10. (previously presented) The device according to claim 1, wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.
- 11. (previously presented) The device according to claim 10, wherein said at least one line, located or provided on said surface, contains line zones having pressure sensitive switches, preferably with said line zones arranged in the longitudinal direction of said at least one line.
- 12. (previously presented) The device according to claim 2, wherein the second pattern of electrically conductive elements is applied on an upward surface of an inner support layer joined with the inner layer
- 13. (previously presented) The device according to claim 2, configured for use with a ball, having a given size, wherein said positions of the pressure sensitive switches are mutually spaced in such a way

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that the ball or the object by impact or pressure will activate at least two pressure sensitive switches.

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- 14. (previously presented) The device according to claim 3, configured for use with a ball, having a given size, wherein said positions of the pressure sensitive switches are mutually spaced in such a way that the ball or the object by impact or pressure will activate at least two pressure sensitive switches.
- 15. (previously presented) The device according to claim 2, wherein at least one of said first pattern of electrically conductive elements and said second pattern of electrically conductive elements is formed by printed circuit elements.
- 16. (previously presented) The device according to claim 3, wherein at least one of said first and pattern of electrically conductive elements and said second pattern of electrically conductive elements is formed by printed circuit elements.
- 17. (previously presented) The device according to claim 4, wherein at least one of said first pattern of electrically conductive elements and said second pattern of electrically conductive elements is formed by printed circuit elements.
- 18. (previously presented) The device according to claim 2, wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions.
- 19. (previously presented) The device according to claim 3, wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions.
- 20. (previously presented) The device according to claim 4, wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions.
- 21. (previously presented) The device according to claim 5, wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions.
- 22. (previously presented) The device according to claim 7, wherein said hollow and flexible protrusions are further provided with spring elements for obtaining a sufficient degree of elastic deformation when activated by said impact or pressure.
- 23. (previously presented) The device according to claim 7, wherein the shape of said protrusions is substantially circular as seen in plan view.
- 24. (previously presented) The device according to claim 8, wherein the shape of said protrusions is substantially circular as seen in plan view.
- 25. (previously presented) The device according to claim 2, wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.
- 26. (previously presented) The device according to claim 3, wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.

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- 27. (previously presented) The device according to claim 4, wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.
- 28. (previously presented) The device according to claim 5, wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.
- 29. (previously presented) The device according to claim 6, wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.
- 30. (previously presented) The device according to claim 7, wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.
- 31. (currently amended) A device [[for]] to use in sports and games for detecting the position of impact of a moveable object, comprising:
- a sheet or mat with an outer and an inner laver, the sheet or mat forming a target surface; a plurality of electrically conductive elements embedded in the sheet or mat and forming pressure sensitive switches distributed over the target surface and communicating with electronic circuits for outputting, processing and displaying electrical signals from pressure sensitive switches when activated by said impact or pressure,
- wherein the plurality of electrically conductive elements comprise a first pattern of electrically conductive elements provided at an underneath side of the outer layer of the sheet or mat at least at the positions of the pressure sensitive switches, and
- a second pattern of electrically conductive elements provided at an upper side of the inner layer of said sheet or mat at least at the positions of the pressure sensitive switches, and
- the first pattern of electrically conductive elements and the second pattern of electrically conductive elements being arranged so as to enable temporary contact to be established at the positions of the pressure sensitive switches; and
- an insulation layer between said outer and inner layers is provided with cavities or holes at the positions of the pressure sensitive switches for establishing temporary contact therein, and from each cavity or hole at least one opening directed sideways for air movement during said impact or pressure activation, wherein at least one of the first and second patterns of electrically conductive elements is subdivided into a number of individual zones, where each zone comprises a plurality of said pressure sensitive switches, and the electronic circuits have separate connections to each of said individual zones,
- wherein the outer laver of the sheet or mat is further provided with a hollow and flexible. dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions, said hollow and flexible protrusions further including spring elements for obtaining a sufficient degree of elastic deformation when activated by said impact or pressure, and
- wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.
- 32. (previously presented) The device according to claim 9, wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line.

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5. The following is an examiner's statement of reasons for allowance:

- 6. Regarding the claimed terms, the Examiner notes that a "general term must be understood in the context in which the inventor presents it." *In re Glaug* 283 F.3d 1335, 1340, 62 USPQ2d 1151, 1154 (Fed. Cir. 2002). Therefore the Examiner must interpret the claimed terms as found on pages 1-23 of the specification. Clearly almost all the general terms in the claims may have multiple meanings. So where a claim term "is susceptible to various meanings, . . . the inventor's lexicography must prevail . . . ." *Id.* Using these definitions for the claims, the claimed invention was not reasonably found in the prior art.
- 7. This application is regarding mat for sport and games for detecting impact position of a movable object. The mat includes an outer layer and an inner layer, each with inlays of electrically conductive elements forming a pressure-sensitive switch distributed over the target area. The pressure sensitive switches communicate with electronic circuits for indicting, processing and presentation of electrical signals when the switches are activated by a ball impact.
- 8. The closest prior art is by Christopher (GB2323297). Christopher teaches that a sheet or mat with an outer and an inner laver, the sheet or mat forming a target surface; a plurality of electrically conductive elements embedded in the sheet or mat and forming pressure sensitive switches distributed over the target surface and communicating with electronic circuits for outputting, processing and displaying electrical signals from pressure sensitive switches when activated by said impact or pressure, wherein the plurality of electrically conductive elements

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comprise a first pattern of electrically conductive elements provided at an underneath side of the outer layer of the sheet or mat at least at the positions of the pressure sensitive switches, and a second pattern of electrically conductive elements provided at an upper side of the inner layer of said sheet or mat at least at the positions of the pressure sensitive switches, and the first pattern of electrically conductive elements and the second pattern of electrically conductive elements being arranged so as to enable temporary contact to be established at the positions of the pressure sensitive switches; and an insulation layer between said outer and inner layers is provided with cavities or holes at the positions of the pressure sensitive switches for establishing temporary contact therein, and from each cavity or hole at least one opening directed sideways for air movement during said impact or pressure activation, wherein at least one of the first and second patterns of electrically conductive elements is subdivided into a number of individual zones, where each zone comprises a plurality of said pressure sensitive switches, and the electronic circuits have separate connections to each of said individual zones.

9. The second closest prior art is by Kustanovich (US Patent No.: 4,659,090). Kustanovich teaches that wherein the outer layer of the sheet or mat is further provided with a hollow and flexible, dome-shaped protrusion at each position of the pressure sensitive switches, each zone comprising a number of protrusions, said hollow and flexible protrusions further including spring elements for obtaining a sufficient degree of elastic deformation when activated by said impact or pressure.

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- 10. However, the Christopher /Kustanovich combination fails to teach the aspect of "wherein the surface of the sheet or mat is provided with at least one line corresponding to a line that is to be found on a standard field or court for the sport or game concerned, where at least some of the zones border said at least one line".
- 11. Yet even if the missing claimed elements were found in a reasonable number of references, a person of ordinary skill in the art at the time the invention was made would not have been motivated to include these missing elements in an embodiment in Haseth disclosure because: all of the above mention reference is directed toward for sports training or practice apparatus and a electrical device for indicating the force and/or location of target impacts or other forces.
- 12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Kamal whose telephone number is (571) 270-3272. The Examiner can normally be reached on Mon-Thursday 8:30 AM- 7:00 PM.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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have questions on access to the Private PAIR system, contact the Electronic Business Center

(EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-9199 (IN USA OR

CANADA) or 571-272-1000.

/Shahid Kamal/

Examiner, Art Unit 3718

/PIERRE E. ELISCA/

Primary Examiner, Art Unit 3718